

## CLAIMS

1. An electronic device (301) in which acceleration of data processing operations is provided, which device comprises a secure execution environment (304) to which  
5 access is restricted, and which device further comprises:  
    an accelerator (311) for accelerating data processing operations, which accelerator is arranged with:  
        a first logical interface over which data to be processed is provided, and  
10       a secure second logical interface over which cryptographic keys employed in the operation of processing said data is provided.
2. The device (301) according to claim 1, wherein  
15 the accelerator (311) is arranged such that the first logical interface and the secure second logical interface share a same physical interface (312).
3. The device (301) according to claim 2, wherein  
20 the accelerator (311) further comprises:  
    a configuration register (313) arranged to indicate to the accelerator whether secure mode or normal mode is set by a processor (303) arranged in the device.
- 25 4. The device (301) according to claim 3, wherein the configuration register (313) further is arranged such that it may be set in one of a plurality of possible encryption modes, the accelerator (311) being arranged to operate in the encryption mode set in the register.  
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5. The device (401) according to claim 1, wherein the accelerator (411) is arranged such that the first logical interface (412) and the secure second logical interface (414) are provided via respective physical inter-  
35 faces.

6. The device (301) according to claim 1, wherein the first logical interface (312) of the accelerator is arranged such that it is accessible by any application, while the secure second logical interface (312) of the accelerator is arranged such that it is accessible by  
5 protected applications only.

7. The device (301) according to claim 6, further being arranged such that protected applications may prevent other applications from accessing the accelerator  
10 (311).

8. The device (301) according to claim 6, wherein protected applications are applications which are allowed  
15 to execute in the secure execution environment (304).

9. The device (101) according to claim 1, further comprising:

storage circuitry (105, 106, 107) arranged with at  
20 least one storage area in which protected data relating to device security are located, and wherein

a processor (103) is arranged such that it may be set in one of at least two different operating modes; and, the device being further arranged such that:

25 the processor is given access to said storage area, in which said protected data are located, when a secure processor operating mode is set,

the processor is denied access to said storage area when a normal processor operating mode is set; and

30 the processor is capable of accessing the secure second logical interface (312) of the accelerator (311), when the secure processor operating mode is set.

10. The device according to claim 9, wherein the  
35 processor (103) further is arranged such that protected applications control the processor operation mode.

11. A mobile communication terminal (300) comprising  
a device (301) according to claim 1.

12. A device (311) for acceleration of data process-  
5 ing operations, which device comprises:

a first logical interface (312) over which data to  
be processed is provided; and

a secure second logical interface (313) over which  
cryptographic keys employed in processing said data is  
10 provided.

13. The device (311) according to claim 12, wherein  
the device is arranged such that the first logical inter-  
face and the secure second logical interface share a  
15 same physical interface (312).

14. The device (311) according to claim 13, wherein  
the device further comprises:

a configuration register (313) arranged to indicate  
20 to the device whether secure mode or normal mode is set.